

# ALL-TERRAIN CONVERSIONS

## ATC TRUCK/SUV OWNER'S MANUAL

CHEVROLET SILVERADO / GMC SIERRA



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***ATC provides a life-changing experience through mobility with style!***

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## SAFETY FIRST

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## LIFT SPECIFICATIONS

- "DOT Private Use lift"
- Operator must back into lift
- Lift rating: 750 Pounds
- Minimum unobstructed platform operating volume: 57,000 cubic inches.

## Operating the Lift

To ensure that the lift is operated in a safe manner, the following precautions should be understood and followed.

## VEHICLE SETUP

**To increase safety, your vehicle and wheelchair should be configured for safe driving by a professional. This includes required controls and wheelchair configuration on the lifting platform. Seat belt modification or extension may be required depending on the size of the wheelchair and individual application which should also be configured by a professional.**

**NOTE:** An after market seatbelt and/or extension must not be used unless it latches into the OEM receptacle. When this OEM receptacle is latched, it is a safety feature which will not allow the door to open. If the door opens with the seatbelt positioned in any other way, it could possibly cause injury to the occupant or damage to the vehicle.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

The wheelchair must be locked in place by an E-Z Lock or equivalent system to ensure it cannot be moved during operation of the vehicle. Locking mechanism is operator and wheelchair specific so must be installed by a qualified local dealer to ensure proper operation.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

Careful observation of the lift must be followed while operating. Keep all objects away from the door while opening and closing.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

Take great care to observe door opening/closing and lift movement through its complete cycle. To stop the sequence, simply release the remote button. Door must be fully open before lift tray is deployed.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

The lift mechanism and door linkages have pinch points. Please keep all people, objects and body parts away from the mechanisms while in operation.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

The lift mechanism involves a number of moving parts that are capable of generating a large amount of force. Do not store objects in the vicinity of the mechanism, or where they could be dislodged into the lift where they could be crushed or damaged.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

Do not attempt to service the lift mechanism. Service should only be complete by a trained professional from your authorized All-Terrain Conversions (ATC) dealer.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

Avoid all wires and electrical components of the vehicle. These components must be serviced by your local authorized ATC Dealer.



**WARNING: DEATH OR SEVERE INJURY MAY OCCUR:**

With head restraints that are not installed and adjusted properly, there is a greater chance that occupants will suffer a neck/spinal injury in a crash. Do not drive until the head restraints for all occupants are installed and adjusted properly, including the wheelchair.

## CHAIR ADJUSTMENTS



**WARNING**

You can lose control of the vehicle if you try to adjust the wheelchair while the vehicle is moving. The sudden movement could startle and confuse you, or cause unexpected manipulation of the vehicle controls. Make all adjustments only when the vehicle is not moving and disable the controls on a power chair if possible.

## INSPECTING YOUR LIFT AFTER A CRASH



**WARNING**

A crash can damage the lift mechanism or various other components of the system causing it to operate in a manner different than intended, resulting in premature wear, serious injury or even death. To insure that your lift is working optimally, have it inspected and any necessary replacements made as soon as possible.

## CHOOSING A PARKING LOCATION



**WARNING**

Do not operate your lift in an area that is not flat and level. Uneven ground could cause the platform to not sit evenly on the ground and could cause the chair to tip or bounce when entering or leaving the lift.

## ALTERNATIVE USES



**WARNING**

Using this lift for uses other than what it is intended for can be dangerous and result in injury or death. Not only can this be dangerous, but it will also void the warranty. Examples of non-approved uses include cargo loading or attempting to use the lift to raise the vehicle.

## TOWING WITH YOUR ATC VEHICLE



**WARNING**

Do not attempt to tow with the vehicle bumper due to the body lift installation. All towing should be done with a class III receiver type hitch only.

## REPAIRS COVERED

The warranty covers repairs to correct any conversion defect related to materials or workmanship occurring during the warranty period. Needed repairs will be performed using new or re-manufactured parts. Damage caused by failure to follow specified guidelines within this manual will not be covered under warranty.

## DAMAGE DUE TO INSUFFICIENT OR IMPROPER MAINTENANCE

Damage caused by failure to follow the recommended maintenance schedule intervals and/or failure to use or maintain fluids, fuel, lubricants, or refrigerants recommended in the OEM owner's manual is not covered.

## MAINTENANCE

ATC recommends biannual service inspections from your local authorized dealer. Replacement parts should only be installed by your local dealer. **Visual inspections should be performed on a regular monthly basis by the operator.** ATC conversion requires separate inspection from normal vehicle maintenance. Both vehicle and conversion inspection should be done per recommended schedules.

Minimum inspection should include the following components. Inspection should include visual check for wear or damage on all linkages and lift components, operational check for any unusual sounds or erratic operation, hydraulic fluid levels, hydraulic hoses and covers and electrical wiring. All maintenance must be performed by trained professionals from your local authorized All-Terrain Conversions Dealer.

INSPECTION ITEM	INSPECTION CRITERIA	INSPECTION FREQUENCY
Bushing on all hinge points	Clean and check for any wear, out of round bushing ID, rust, unusual noise or motion	Monthly by operator and biannually by local authorized dealer.
Bearing on slide and lift	Check for any wear, out of round bushing ID, rust, unusual noise or motion	Monthly by operator and biannually by local authorized dealer.
Mechanical linkages and lift beams	Check for any signs of mechanical damage, missing components, excessive rust or loose fasteners.	Monthly by operator and biannually by local authorized dealer.
Electrical wiring	Corrosion at connection points, wear or chafing of insulation, pinched or cut wires. Routing to avoid any potential damage.	Monthly by operator and biannually by local authorized dealer.
Hydraulic cylinders, pump, and manifold - USE AUTOMATIC TRANSMISSION FLUID ONLY	Check for proper fluid level in tank ( <b>DO NOT TOP OFF WITH CYLINDERS EXTENDED, MAY CAUSE OVERFLOW</b> ), leaks, damage, abrasion or abnormal wear.	Monthly by operator and biannually by local authorized dealer.
Hydraulic hoses and abrasive jacket	Any abrasion, wear or damage. Routing to avoid any potential damage.	Monthly by operator and biannually by local authorized dealer.
Truck undercarriage	Damage and excessive rust, reapply Rust prevention as necessary	Biannually by local authorized dealer.
Tire damage, wear and pressure	Check for any signs of damage, uneven wear, and proper inflation	Monthly by operator.

## INSTALLING FACTORY SEAT

To install the original factory seat, position the seat onto the lift platform and align the latches with the latch pins. Move the seat rearward until the latches engage the pins. Connect the seat plug if so equipped.



### WARNING

When installing the original vehicle seat, insure that the seat base is correctly installed to the lift platform and that the locking latches are engaged. Failure to do this will allow the seat to move unexpectedly and possibly causing you to lose control of the vehicle. An unsecured seat will increase the likelihood of injury in a crash.



## REMOVING FACTORY SEAT

Disconnect the seat plug if so equipped. Pull the cable release to release the latches. Move the seat to clear latch pins and remove seat.

## CONTROL PANEL LAYOUT

- Wire drops are located under the left side of dash for **lock down mechanism switches** and at lift pan for **lock down mechanism**.
- Wires are pre-run for a wheelchair docking mechanism which are located under driver side dash and run under carpet to the lift pan.
- Under Driver Side Dash to Lift Pan: 16g Red w/White stripe, 16g Black, 18g White, 18g Green w/White stripe, 18g Red, 18g Black



***This wiring configuration must be maintained.***

1. 12 Volts (+) from 16 amp breaker
2. 12 Volts (+) from 16 amp breaker
3. 12 Volts (+) from 16 amp breaker
4. 12 Volts (+) from 16 amp breaker
5. 12 Volts (+) from 16 amp breaker
6. Ground (-)
7. Ground (-)
8. Open
9. Open

## CONTROL PANEL

The Control panel is located behind the rear seat toward the bottom and can be accessed for monitoring by lifting the lower portion of the seat. For repair or replacement of the control panel, the rear seat will need to be removed. LED lighting matches the indication label to identify what state the lift and door operation is in. Push the push button breaker IN to turn the ATC Control Boards ON, depress to turn OFF. Control Boards utilize a sleep mode after non-use to save on battery draw even though it is minimal.



## CIRCUIT BREAKERS

Located in the engine compartment near the OEM battery is a 250 AMP Mega Fuse protecting the hydraulic system motor along with a 20 AMP Auto Reset circuit breaker for both control boards. **This wiring configuration must be maintained on OEM battery if an auxiliary battery is installed.**

A push button breaker that protects the control circuitry and the boards themselves is located on the control board assembly.

## LIMIT SWITCH'S PURPOSE

Senses when the door is closed and the lift is either in or out and also up so the next function can be started.

## LIMIT SWITCH LOCATION

There are 4 limit switches controlling the hydraulic actuation of the door & lift system. Each limit switch contacts a ground target to signal end of stroke. The Door Close Switch is located in the center of the vertical support plate with the target mounted on the door standoff. The Tray Out switch is mounted on the lift's pivot. The Tray In switch is mounted at the back of the floor pan. Ground targets are mounted opposite these switches. The fourth switch is mounted on the upright to sense when the lift pan is in the "full up" position. The target is mounted on the back of the lift pan.

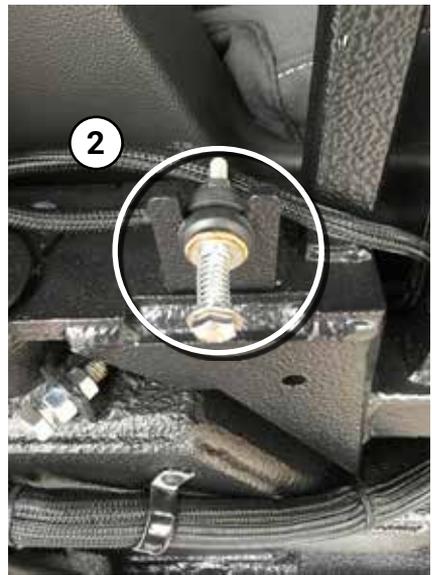
## LIMIT SWITCH ADJUSTMENT

Limit switch contact should be adjusted by turning the target bolts. Ensure there is no interference with motion of the tray and target, and that the limit switch is touching the target to ensure proper ground signal to the controller.

#	SWITCH	NOTES
1	Door Tilt Switch	
2	Door "IN" Limit Switch	
3	Door "IN" Limit Switch Contact	
4	Lift Pan "OUT" Limit Switch	
5	Lift Pan "IN" Limit Switch	
6	Lift Pan "UP" Limit Switch	Down limit is bottom of hydraulic stroke



Door Tilt Switch



Door "IN" Limit Switch



Door "IN" Limit Switch Contact



Lift Pan "OUT" Limit Switch



Lift Pan "IN" Limit Switch



Lift Pan "UP" Limit Switch  
\*Down limit is bottom of hydraulic stroke

## KEY FOB BUTTONS



**ALWAYS START VEHICLE PRIOR TO OPENING OR CLOSING DOOR AND RAMP.**



**ACCIDENTALLY DEPRESSING THE OPEN SWITCH COULD CAUSE DAMAGE.**

## Key Fob Button Description

1. Press and hold OPEN for the gullwing door to *Open*.
2. Press and hold CLOSE for the gullwing door to *Close*.
3. Press and hold for the lift to go *Up* and *In*.
4. Press and hold for the lift to go *Out* and *Down*.



An after market Alarm/Remote Start system **may** have been installed to interface with the TouchTronics control modules if the truck was not originally equipped with a remote start system. The after market Fobs may be used but are not needed.

**SAFETY**

Use caution in handling & storing the Key FOB. Unintended deployment may result in damage and/or injury.



Lift tray must not be deployed until door is fully opened. Damage may result if the lift tray makes contact with the door.

**SAFETY**

\*Safety: Door will not function with the converted side's seat belt latched.

**SAFETY**

\*Safety: Door will not function with the truck running and foot on brake.

## MANUAL HYDRAULIC PUMP OPERATION

The hydraulic hand pump can be used to operate any of the hydraulic circuits in case of emergency or loss of battery power. Manual operation should not be used for daily operation of the hydraulic system.

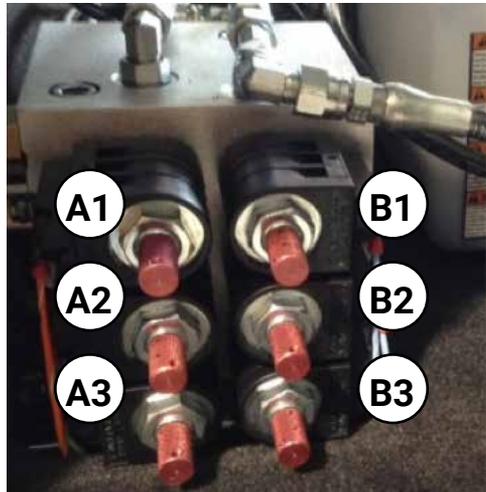
In a situation where manual operation of the hydraulic system is necessary, first ensure electrical power to the system has been shut off, and all electrical controls are off.

### To operate pump:

1. Ensure there is adequate automatic transmission fluid in the reservoir tank, located beneath the vehicle.
2. Ensure there are no objects or persons in the way of operating the ramp.
3. Insert handle for hand pump into pump handle receptacle.
4. Operate pump and ensure the pump is building pressure (resistance to pumping) before operating any of the manual valves. It may take additional strokes of the hand pump to fully prime the system if it has not been used recently.
5. Select which hydraulic cylinder or operation you wish to move and select appropriate valve to operate (A or B). Do not operate more than one valve at a time.

PIN	Pull Red Pin to Acuate*
A1	Door Open
A2	Tray / Chair Up
A3	Horizontal Tray Out
B1	Door Close
B2	Tray / Chair Down
B3	Horizontal Tray In

\* Make sure to move Pin counterclockwise back to the original position before operation.



6. Pull the appropriate red Pin while simultaneously operating the hand pump to move the cylinders while verifying safe motion of the ramp. The red Pin may be pulled out and turned clockwise to lock position so it does not have to be held while pumping.

THE FOLLOWING APPLIES TO VEHICLES PRODUCED AFTER JANUARY 1, 2018.

To help ensure that occupants will be able to exit in case of an emergency, our vehicles have an additional battery and necessary hydraulic components located outside of the engine area.

## AUXILIARY ELECTRICAL SYSTEM

The electrical system in your ATC truck includes an additional battery as well as an electronic battery isolator. This system allows the lift to operate independently from the vehicle's electric system for a limited number of cycles.

In the case of a vehicle electrical system failure (eg. bad battery, engine fire, etc.), the user will still be able to operate the lift to get out of the vehicle. Because this system uses a smaller capacity battery, it is highly recommended that the vehicle engine always be running when using the lift. This allows the lift to operate off the engine's electrical system and helps preserve the life of the auxiliary battery. Anytime the lift is operated without the engine running, the smaller auxiliary battery will be utilized.



Auxiliary Battery



Battery Isolator

## HYDRAULIC PUMP

Our safety-first goal for the user demanded that we move the pump power unit from the engine compartment. We moved it onto the frame rails, next to the auxiliary battery (*actual mounting position may vary for different vehicle models*).



Hydraulic Reservoir Tank

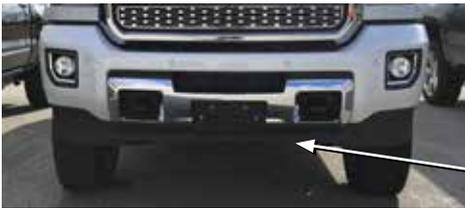
### Checking Hydraulic Fuel Level

To check hydraulic fluid levels, simply remove screws from the pump cover as shown above and observe the fluid level in the white reservoir tank. A cloth may need to be used to wipe excess dirt from tank.

**EMERGENCY HOOD RELEASE**

Some vehicle's passenger door can not be unlocked manually with a key. In the event of a dead battery, the vehicle can not be entered to pull the OEM hood release. When needed we've added an emergency hood release on driver side conversions to eliminate this situation.

*\*The Emergency Hood Release only applies to certain driver side conversions.*



## WARRANTY

All Terrain Conversions, LLC (ATC) warrants to the original consumer that its products shall be free from defects in materials and workmanship for a period of three (3) years or 36,000 miles, whichever comes first. At its option, ATC will repair or replace at no charge any ATC product that proves to be defective within such warranty period. This warranty shall not apply if the ATC product has been damaged by unreasonable use, accident, negligence, service or modification by anyone other than ATC or its affiliates, or by any other causes unrelated to materials and workmanship.

### Exclusions and Additional Limitations

This warranty relates to the condition of ATC product at the time it is manufactured and does not cover parts or service as a result of:

- a. Any expense not pre-approved, in writing by ATC. Consideration will be given for emergency expenses when ATC can not be reached by calling the **Service Department at (877) 291-6309**.
- b. Normal wear and tear or required maintenance
- c. Abuse including, without limitation: neglect, improper operation, misapplication, overloading, accident or alterations not approved by ATC.
- d. Lack of maintenance including, without limitation: failure to inspect and maintain, improper repair, use of parts not approved by ATC. All parts must be obtained from or approved by ATC.
- e. Damage caused in transit or as the result of the following:
  - i. Acts of God, collision, fire, theft, freezing, vandalism, riot, explosion, or objects striking the vehicle
  - ii. Misuse of the vehicle such as overloading, racing or other off-road competition.
  - iii. Damage caused by failure to follow the recommended maintenance schedule intervals and/or failure to use or maintain fluids, fuel, lubricants, or refrigerants recommended in the vehicles owner's manual.
- f. Customer modifications including but not limited to software changes, mechanical alterations or changes in the vehicle's center of gravity.
- g. **Surface rust and paint peeling are NOT covered by warranty**, however it is recommended that rust should be sanded and repainted to maintain structural integrity as a part of routine maintenance. Structural failure due to rust will be deemed as improper maintenance and not covered by warranty
- h. Rental vehicles are not a covered expense while vehicle is being repaired or serviced.

ATC will not be liable for any consequential damages, loss or expense arising in connection with the use of or the inability to use its goods for any purpose whatsoever. ATC's maximum liability shall not in any case exceed the contract price for the goods claimed to be defective or unsuitable.

Products will be considered accepted by customer unless written notice to the contrary is given to ATC within ten (10) days of such delivery to customer. ATC shall not in any case be liable for any event occurring or defect discovered with regard to said product unless written notice thereof is given to ATC within thirty (30) days of such product delivery to customer.

ATC is not responsible for loss or damage to products owned by customer and located on ATC's premises caused by fire or other casualties beyond ATC'S control.

ATC Dealers may offer services on credit accepting payment directly from ATC. However, in the event a dealer or service provider does not extend credit, **preapproved services will have to be paid for by customer and submitted directly to ATC for reimbursement**. Approved expenses will be reimbursed by check and mailed within 30 days of receiving all materials deemed necessary by ATC.

# **ALL-TERRAIN CONVERSIONS**

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